

## DEVELOPMENT, VALIDATION, AND RELIABILITY TESTING OF A MENSTRUAL HEALTH AND HYGIENE QUESTIONNAIRE (MHHM-Q) FOR FEMALE SECONDARY SCHOOL STUDENT

Assoc. Prof Dr Suhaiza binti Samsudin  
Department of Family Medicine, Kuliyah of Medicine,  
International Islamic University Malaysia  
25200, Kuantan Pahang.  
Email: shaiza@iium.edu.my, Tel: 019- 2032466

Dr. Chitra A/P Muniandy  
Department of Family Medicine, Kuliyah of Medicine,  
International Islamic University Malaysia  
25200, Kuantan Pahang.  
Email: chitraandy13@gmail.com, Tel: 016-9864088

Asst Prof Dr Noor Artika binti Hassan  
Department of Community Medicine, Kuliyah of Medicine,  
International Islamic University Malaysia  
25200, Kuantan Pahang.  
Email: noor\_artika@iium.edu.my, Tel: 012-910 4564

Asst Prof Dr Muhd Alwi bin Muhd Helmi  
Department of Paediatric, Kuliyah of Medicine,  
International Islamic University Malaysia  
25200, Kuantan Pahang.  
Email: muhdalwi@iium.edu.my, Tel: 011-11333010

### ABSTRACT

Menstruation is a regular physiological process for women and adolescent girls across the globe. For a young girl, the onset of menstruation is a significant milestone in her life. In many cultures, menarche represents a transition into womanhood. The ability to menstruate symbolizes her fertility and the capacity to create new life. Poor management of menstrual health and hygiene can predispose young girls to various health-related issues, such as an increased risk of infection. Therefore, assessing their understanding and practices related to menstrual health and hygiene management (MHHM) is crucial to ensuring their menstrual health and safety. The objective of this study is to develop and validate a questionnaire to assess the knowledge and practices of MHHM among female adolescents. A cross-sectional study was conducted to develop the questionnaire, and items were identified and generated through a literature review. Content validation was performed by experts, and the content validity index (CVI) was calculated. Face validation was conducted with 10 secondary school girls, and the face validity index (FVI) was measured. Reliability analysis was carried out to assess the internal consistency of the MHHM-Q. Results: A total of 26 MHHM-Q items were finally developed. The item CVI and FVI values were both greater than 0.8. The Cronbach's alpha values for the MHHM domains were 0.834 for the knowledge components and 0.716 for the practice component. In conclusion, the MHHM-Q demonstrated good validity and reliability for measuring MHHM understanding among female secondary school adolescents. This study provided evidence of validity in terms of content, response process, and internal structure, supporting the use of MHHM-Q in assessing menstrual health and hygiene management knowledge among female adolescents.

Keywords: Menstrual Health, Menstrual Hygiene, Menstrual Health Questionnaire.